

What is claimed is:

1. An analytical method for an oxidatively damaged guanine compound comprising:
 - 5 a step to purify an oxidatively damaged guanine compound generated as a result of damaging guanine in DNA, RNA or nucleotide using anion-exchange chromatography (HPLC-1); and
 - a step to measure the oxidatively damaged guanine compound by a detector.
- 10 2. The analytical method for an oxidatively damaged guanine compound according to Claim 1, wherein the oxidatively damaged guanine compound is 8-hydroxydeoxyguanosine (8-OH-dG) and/or 8-hydroxyguanine (8-OH-Gua).
3. An analytical method for an oxidatively damaged guanine compound, wherein,
 - 15 the analytical method comprises:
 - a step to purify an oxidatively damaged guanine compound generated as a result of damaging guanine in DNA, RNA or nucleotide using anion-exchange chromatography (HPLC-1);
 - a step to measure a concentration correcting substance for the oxidatively
 - 20 damaged guanine compound contained in the sample using a detector; and
 - a step to measure the oxidatively damaged guanine compound by a detector, and
 - said oxidatively damaged guanine compound and the concentration correcting substance are simultaneously analyzed.
- 25 4. The analytical method for an oxidatively damaged guanine compound according

to Claim 3, wherein the oxidatively damaged guanine compound is 8-hydroxydeoxyguanosines (8-OH-dG) and/or 8-hydroxyguanine (8-OH-Gua), and the concentration correcting substance for the oxidatively damaged guanine compound is 7-methylguanine (7-MG) and/or creatinine (Cre).

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5. An analytical method for an oxidatively damaged guanine compound, wherein, the analytical method comprises:

a step to purify an oxidatively damaged guanine compound generated as a result of damaging guanine in DNA, RNA or nucleotide using anion-exchange chromatography

10 (HPLC-1);

a step to detect an elution position of a marker pre-added into the sample, and to appropriately measure the concentration correcting substance for the oxidatively damaged guanine compound contained in the sample; and

a step to measure the oxidatively damaged guanine compound by a detector, and
15 the oxidatively damaged guanine compound and the concentration correcting substance are simultaneously analyzed.

6. The analytical method for an oxidatively damaged guanine compound according to Claim 5, wherein the oxidatively damaged guanine compound is
20 8-hydroxydeoxyguanosine (8-OH-dG) and/or 8-hydroxyguanine (8-OH-Gua);

the concentration correcting substance for the oxidatively damaged guanine compound is 7-methylguanine (7-MG) and/or creatinine (Cre); and

the marker is 8-hydroxyguanosines (ribonucleosides) (8-OH-rGuo).

25 7. The analytical method for an oxidatively damaged guanine compound according

to Claim 1, wherein the sample is urine.

8. The analytical method for an oxidatively damaged guanine compound according to Claim 3, wherein the sample is urine.

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9. The analytical method for an oxidatively damaged guanine compound according to Claim 5, wherein the sample is urine.

10. The analytical method for an oxidatively damaged guanine compound according to Claim 7, wherein analysis is conducted by re-extracting the urine, which has been instilled onto a piece of paper and dried.

11. The analytical method for an oxidatively damaged guanine compound according to Claim 8, wherein analysis is conducted by re-extracting the urine, which has been instilled onto a piece of paper and dried.

12. The analytical method for an oxidatively damaged guanine compound according to Claim 9, wherein analysis is conducted by re-extracting the urine, which has been instilled onto a piece of paper and dried.

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13. The analytical method for an oxidatively damaged guanine compound according to any one of Claims 1 to 12, wherein the step to purify using the anion-exchange column (HPLC-1), a carboxylic acid type column and an eluent containing carboxylic acid or salt thereof are used.

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14. The analytical method for an oxidatively damaged guanine compound according to any one of Claims 1 to 12, further comprising:

a step to further purify a fraction containing the oxidatively damaged guanine compound purified by the anion-exchange column (HPLC-1) by a reverse phase column (HPLC-2); and

a step to measure the purified oxidatively damaged guanine compound purified by HPLC-2.

15. An analyzer for oxidatively damaged guanine compound provided with

1) an anion-exchange column (HPLC-1) that specifically absorbs an oxidatively damaged guanine compound generated as a result of damaging guanine in DNA, RNA or nucleotide contained in a sample;

2) a reverse phase column (HPLC-2) that further purifies a fraction containing the oxidatively damaged guanine compound obtained by purifying using the anion-exchange column (HPLC-1); and

3) a detector to be used for obtaining a fraction containing the oxidatively damaged guanine compound by the anion-exchange column (HPLC-1) and another detector that measures the purified oxidatively damaged guanine compound obtained by the reverse phase column (HPLC-2).

16. The analyzer according to Claim 15 where the detector to be used for obtaining a fraction containing the oxidatively damaged guanine compound by the anion-exchange column (HPLC-1) is a detector equipped with a cell having a short optical path.

17. An analytical mechanism for an oxidatively damaged guanine compound

(including a control program)

receiving a peak signal of a marker pre-added to a sample;

transmitting a signal to open a valve when the oxidative damaged guanine compound is eluted after a fixed time;

5 starting fractionation;

transmitting a fractionation completion signal after another fixed time; and

then transmitting a signal to inject the obtained fraction containing the oxidatively damaged guanine compound into a reverse phase column (HPLC-2), and

thereby purifying and recovering the oxidatively damaged guanine compound

10 eluted from the reverse phase column (HPLC-2).